

IN THE CLAIMS

1. (Currently amended) A centering drum for filter assembly machines, the centering drum (1) comprising:

a substantially cylindrical shell (7) rotatable about a longitudinal axis (2) and defining a transverse reference plane (T);

a plurality of seats (12) formed, parallel to and equally spaced from said longitudinal axis (2), on the outside of said shell (7) each of said seats (12) being dimensioned and adapted to receive a respective filter portion (5) in an offset position offset laterally with respect to said reference plane (T); and

centering means (28) for moving each filter portion (5), along the respective seat (12), from the offset position to a center position to center the filter portion with respect to said reference plane (T);

wherein the centering means (28) is fitted to said shell (7) to rotate with the shell (7) about said longitudinal axis (2), and comprises a plurality of stop members (40), each of the stop members being located adjacent to a respective seat (12) on a respective side of said reference plane (T) to define the centered position of the respective filter portion (5), and push means (29) for moving each of the filter portions (5) axially onto the respective stop member (40);

wherein the stop members (40) includes a first group succession of stop members disposed on a first side of said reference plane (T) and a second group succession of stop members disposed on a second side of said reference plane (T) opposite said first side, the first and second groups successions of stop members being alternatingly disposed on the opposite sides of said reference plane (T) such that if a first seat is engaged by a stop member

of the first group succession, then the adjacent seats are engaged by stop members of the second group succession; and

wherein adjusting means (31) is provided to move the first and second groups successions of stop members equally and oppositely along said longitudinal axis (2) with respect to said reference plane (T).

2. (Previously presented) A drum as claimed in claim 1, wherein said push means (29) is pneumatic means.

3. (Previously presented) A drum as claimed in claim 1, wherein said push means (29) is suction means which come out inside the relative said seat (12), on the same side of said reference plane (T) as the relative said stop member (40).

4. (Original) A drum as claimed in claim 1, wherein each said stop member (40) comprises a finger (40) housed in axially sliding manner inside the relative said seat (12), and having an end surface (43) facing said reference plane (T) and defining a stop surface for the relative said filter portion (5).

5. (Previously presented) A drum as claimed in claim 4, wherein said push means (29) is suction means which come out inside the relative said seat (12) at said end surface (43).

6. (Previously presented) A drum as claimed in claim 5, wherein said push means (29) comprises a suction hole (37) which comes out inside the relative said seat (12), beneath

the relative said finger (40); and a groove (44) formed along said finger (40), communicating with the relative said suction hole (37), and terminating at said end surface (43).

7. (Currently amended) A drum as claimed in claim 1, wherein the stop members (40) in each of the first and second groups successions are integral with one another.

8. (Currently amended) A drum as claimed in claim 4, wherein said first and said second groups successions of stop members respectively comprise a first and a second annular body (38, 39) which are coaxial with said longitudinal axis (2), are located axially outwards of said seats (12) and on opposite sides of said reference plane (T), and connect the relative said fingers (40) to one another; said first and said second annular body (38, 39) being movable axially with respect to said shell (7), and being fitted to said adjusting means (31).

9. (Previously presented) A drum as claimed in claim 8, wherein said adjusting means (31) comprises at least one first screw-nut screw coupling (52), in turn comprising a screw (50) extending parallel to said longitudinal axis (2), and a nut screw (51) formed through said first annular body (38); at least one second screw-nut screw coupling (58) operating in the opposite direction to said first screw-nut screw coupling (52), and in turn comprising a screw (56) extending parallel to said longitudinal axis (2), and a nut screw (57) formed through said second annular body (39); and a ring gear (47) coaxial with said shell (7) and mounted to rotate, with respect to said shell (7), about said longitudinal axis (2); each said screw (50; 56) being fitted integrally with a relative pinion (48; 49); each said pinion (48;

49) meshing with said ring gear (47), and actuating means (59) being provided to impart to said ring gear (47) a given, adjustable rotation about said longitudinal axis (2).

10. (Previously presented) A drum as claimed in claim 1, wherein said filter portions (5) are double filters (5) for cigarettes.